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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,537	07/20/2001	Jason S. Reid	P21-US	2129
26148	7590	11/17/2004	EXAMINER DUONG, KHANH B	
REFLECTIVITY, INC. 350 POTRERO AVENUE SUNNYVALE, CA 94085			ART UNIT 2822	PAPER NUMBER

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/910,537

Applicant(s)

REID, JASON S.

Examiner

Khanh Duong

Art Unit

2822

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24, 55-66 and 71-81 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4-6, 8, 9, 11-16, 18, 24, 64, 65 and 71-80 is/are rejected.
- 7) ☒ Claim(s) 2, 3, 7, 10, 17, 19-23, 55-63, 66 and 81 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 5, 2004 has been entered.

Response to Amendment

Accordingly, claims 1, 24, 55 and 64 were amended, and new claims 71-81 were added. Currently, claims 1-24, 55-66 and 71-81 are pending in this application.

Claim Objections

Claims 1, 24, 55, 64 and 71-80 are objected to because of the following informalities:

Re claims 1, 24, 55, 71, 73, 75 and 79, the process limitation “deposited” or “being formed by chemical or physical vapor deposition” is not germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentable weight.

Re claims 55 and 75, it has been held that the recitation that an element is “capable of” performing a function (“movement”) is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138.

Re claims 1, 24, 55, 64, 72-74, 76-78 and 80, the functional recitation that “operable to move” or “be actuated by an electrostatic force derived from an electrostatic field established

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between the movable portion and an electrode” has not been given patentable weight because it is narrative in form. In order to be given patentable weight, a functional recitation must be expressed as a “means” for performing the specified function, as set forth 35 U.S.C. 112, 6th paragraph, and must be supported by recitation in the claim of sufficient structure to warrant the presence of the functional language. *In re Fuller*, 1929 C.D. 172; 388 O.G. 279.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1, 4-6, 8, 9, 11-16, 18, 24, 64, 65 and 71-80 are rejected under 35 U.S.C. 102(e) as being anticipated by Bishop et al. (U.S. 6,124,650).

Re claims 1, 4-6, 8, 9, 11-16, 18, 24, 64, 65 and 71-80, Bishop et al. (“Bishop”) discloses in FIG. 3 a micromechanical device (MEMS actuator) comprising: a semiconductor substrate 26;

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a movable portion 20 and a flexible portion (hinge) 12 for allowing movement of the movable element 20 relative to the substrate 26; and a post (base) for connecting the movable element 20 to the substrate 26 via the flexible portion 12; wherein the flexible portion 12 comprises a nitride (ceramic) compound (Cr-N, Ta-N or Zr-N) and a late transition metal (Fe, Co, or Ni), the nitride compound and the late transition metal are in the same layer 14, and the layer 14 is a ternary or higher system [see col. 5, ln. 34-46].

Re further claim 9, since Bishop does not disclose the nitride compound comprising any oxygen, it is expressly understood that the nitride compound comprises 0% oxygen, which is less than 0.1% oxygen as claimed.

Re further claim 18, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed (e.g. MEMS sensor) does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex Parte Masham*, 2 USPQ F.2d 1647 (1987).

Allowable Subject Matter

Claims 2, 3, 7, 10, 17, 19-23, 66 and 81 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 55-63 would be allowable if rewritten or amended to overcome the objections of claim 55 set forth in this Office action.

The following is a statement of reasons for the indication of allowable subject matter: none of the prior art of record, taken alone or in combination, fairly shows or suggests all the combined limitations as claimed.

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a movable portion 20 and a flexible portion (hinge) 12 for allowing movement of the movable element 20 relative to the substrate 26; and a post (base) for connecting the movable element 20 to the substrate 26 via the flexible portion 12; wherein the flexible portion 12 comprises a nitride (ceramic) compound (Cr-N, Ta-N or Zr-N) and a late transition metal (Fe, Co, or Ni), the nitride compound and the late transition metal are in the same layer 14, and the layer 14 is a ternary or higher system [see col. 5, ln. 34-46].

Re further claim 9, since Bishop does not disclose the nitride compound comprising any oxygen, it is expressly understood that the nitride compound comprises 0% oxygen, which is less than 0.1% oxygen as claimed.

Re further claim 18, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed (e.g. MEMS sensor) does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex Parte Masham*, 2 USPQ F.2d 1647 (1987).

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Claims 55-63 would be allowable if rewritten or amended to overcome the objections of claim 55 set forth in this Office action.

The following is a statement of reasons for the indication of allowable subject matter: none of the prior art of record, taken alone or in combination, fairly shows or suggests all the combined limitations as claimed.

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Re claim 55, none of the prior art of record fairly shows or suggests a micromechanical device comprising: *a flexible portion that comprises a late transition metal and an element from groups 3A to 6A of the periodic table, wherein the late transition metal and the element from groups 3A to 6A of the periodic table are in the same film or layer and wherein the film or layer is a ternary or higher system.*

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh Duong whose telephone number is (571) 272-1836. The examiner can normally be reached on Monday - Thursday (9:00 AM - 6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amir Zarabian can be reached on (571) 272-1852. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



KBD



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